

Claims

- [1] A dishwasher comprising:
 - a control panel for a user to input commands with;
 - a temperature sensor for sensing a temperature of wash liquid;
 - a controller for controlling the dishwasher to perform each cycle according to a selected washing course inputted into the control panel, and selectively controlling an operation of a wash pump during a hot rinse cycle; and
 - a load driver for driving a heater and the wash pump according to a control signal from the controller.
- [2] The dishwasher according to claim 1, wherein the controller controls the operation of the wash pump in the hot rinse cycle according to a temperature value received from the temperature sensor.
- [3] The dishwasher according to claim 1, further comprising a storage for storing reference target temperatures, setting times, etc. according to the selected washing course inputted into the control panel by the user.
- [4] The dishwasher according to claim 1, wherein the controller prompts the wash pump to operate in a certain rhythm over a predetermined duration in the hot rinse cycle until the wash liquid reaches a preset temperature.
- [5] A controlling method for a dishwasher, comprising:
 - executing various cycles according to a selected course;
 - beginning a rinse cycle during an operation of the course;
 - controlling an operation of a heater and a wash pump, depending on whether the rinse cycle is a hot rinse cycle;
 - ending the operation of the wash pump when the rinse cycle is completed; and
 - executing subsequent cycles.
- [6] The controlling method of claim 5, wherein if the hot rinse cycle was not selected, operation of only the wash pump is implemented over a preset duration after the rinse cycle begins.
- [7] The controlling method of claim 5, further comprising:
 - operating the heater and heating wash liquid when the hot rinse cycle is selected; and
 - controlling the operation of the wash pump according to whether the wash liquid reaches a preset temperature.
- [8] The controlling method according to claim 7, further comprising ending the operation of the heater and activating the wash pump when the wash liquid reaches the preset temperature.
- [9] The controlling method according to claim 7, further comprising ending the

- operation of the heater and activating the wash pump for a duration of a first setting time when the wash liquid reaches the preset temperature.
- [10] The controlling method according to claim 7, further comprising controlling the operation of the wash pump according to whether a second setting time elapses from a beginning of the operation of the heater when the wash liquid does not reach the preset temperature.
- [11] The controlling method according to claim 10, further comprising:
operating the wash pump for a duration of a third setting time when the second setting time elapses; and
determining whether the wash liquid reaches the preset temperature when the second setting time does not elapse or when the third setting time elapses.
- [12] The controlling method according to claim 11, wherein the second setting time is set to be equal or longer in duration than the third setting time.
- [13] A controlling method of a dishwasher comprising:
inputting a wash course by a user;
executing applicable cycles according to the selected wash course;
beginning a rinse cycle from the applicable cycles and determining if the rinse cycle is selected to be a hot rinse cycle;
operating a heater if the rinse cycle selected is the hot rinse cycle, and determining whether wash liquid has reached a preset temperature; and
ending the operation of the heater and operating the wash pump for a duration of a first setting time if the wash liquid has reached the preset temperature, and periodically operating the wash pump until the wash liquid attains the preset temperature if the preset temperature has not been reached.
- [14] The controlling method according to claim 13, wherein if the first setting time elapses, the operation of the wash pump is ended, and subsequent cycles are performed.
- [15] The controlling method according to claim 13, wherein in the periodical operating of the wash pump, a determining of whether to operate the wash pump is based on whether a second setting time elapses from a beginning of the operating of the heater.
- [16] The controlling method according to claim 13, wherein in the periodical operating of the wash pump, if a second setting time elapses from a beginning of the operation of the heater, the wash pump operates for a duration of a third setting time.
- [17] The controlling method according to claim 16, wherein if the third setting time elapses, the operation of the wash pump is ended, and the determining of whether the wash liquid has reached the preset temperature is repeated.

- [18] The controlling method according to claim 16, wherein the first setting time is equal to or greater than the second setting time.
- [19] The controlling method according to claim 16, wherein the second setting time is equal to or greater than the third setting time.
- [20] The controlling method according to claim 13, wherein in the periodical operating of the wash pump, when a second setting time is not elapsed from a beginning of the operation of the heater, the determining of whether the wash liquid has reached a preset temperature is continuously repeated.